

# Women's Health and Mortality Chartbook



## *Healthy Women: State Trends in Health and Mortality*

U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES

Office on Women's Health

Centers for Disease Control and Prevention, National Center for Health Statistics



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## Website

For more information about Healthy Women: State Trends in Health and Mortality, or to access data files directly, visit:

<http://www.cdc.gov/nchs/healthywomen.htm>

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**Kate M. Brett, Ph.D., NCHS**  
**Suzanne G. Haynes, Ph.D., OWH**

*Prepared by*  
**The Lewin Group, Inc.**

**The Lewin Group** is a premier national health and human services consulting firm with 34 years of experience delivering objective analyses and strategic counsel to prominent public agencies, non-profit organizations, and private companies across the United States.

**Department of Health and Human Services**

Tommy G. Thompson

Secretary

**DHHS Office on Women's Health**

Wanda K. Jones, Dr. P.H.

Deputy Assistant Secretary for Health (Women's Health)

**Centers for Disease Control and Prevention**

Julie L. Gerberding, M.D., M.P.H.

Director

**National Center for Health Statistics**

Edward J. Sondik, Ph.D.

Director

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## Dedication

This publication is dedicated to our colleague and friend, Joanna Skilogianis, Ph.D., (1964-2004). Dr. Skilogianis served as the project manager for the *Healthy Women* project from 2000 until the end of her federal service in 2003. Her skill at working with people as well as her capability to focus both on the overall mission of the project and on the many small details is evident in the quality and breadth of this data dissemination project.

She will be deeply missed.

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# Introduction

The *Women's Health and Mortality Chartbook* is a statistical resource on women's health in each of the states, the District of Columbia and Puerto Rico. The chartbook was developed to provide readers with an easy-to-use collection of current state data on critical issues of relevance to women. A total of 27 different health indicators are featured, which highlight some of the key issues related to women's health that are being measured regularly at the state level. It is intended to be used as a reference for policymakers and program managers at the Federal and state levels to identify key health issues of importance in each state. The chartbook may also serve to stimulate additional detailed questions regarding the specific populations of concern in each state for these and other health indicators.

The data presented in this chartbook are taken from *Healthy Women: State Trends in Health and Mortality* (to be referred to as *Healthy Women*). *Healthy Women* was developed by the Department of Health and Human Services' Office on Women's Health and the Centers for Disease Control and Prevention's National Center for Health Statistics as a tool to help identify vulnerable and underserved populations at the state level, where most decisions regarding health policy are developed and implemented. While the project provides data on health, health care, and risk behavior on all populations in each state for which data are collected, women's health concerns have been targeted for inclusion, and racial and ethnic differences among women are a primary focus. The information presented in this chartbook represents only a small portion of the data available from *Healthy Women*, which addresses many other questions related to women's health.

The *Women's Health and Mortality Chartbook* is intended to present state data on women's health in a straightforward, user-friendly manner. More technically detailed publications can be obtained from the original data sources (National Vital Statistics System and the Behavioral Risk Factor Surveillance System) and from *Healthy Women*.

## ***Structure of the Chartbook***

The first section of the chartbook contains U.S. maps for each of the featured health indicators. Each health indicator is presented on a single map showing the variation in health status across the 50 states, the District of Columbia and Puerto Rico. The maps present geographic differences in either death rates or proportions of women with specific health characteristics. Data for each health indicator are divided into 5 categories (quintiles), with approximately 10 states in each category. Variations in health status are represented using a color gradation of dark to light, with dark colors representing poorer relative health status and light colors representing better relative health status across all maps.

The second section of the chartbook contains women's health profiles for each of the 52 geographic areas presented. The profiles include a brief summary that highlights how each state or territory fares on the presented indicators, and provides some additional background information. Each profile contains population statistics and data on each of the 27 featured health and mortality indicators, both among women overall and by race and Hispanic origin. The Healthy People 2010 target is included for comparison, where available.<sup>1</sup> Finally, the state or territory's relative ranking on each indicator is presented, with lower numerical ranking values indicating better health status relative to other states and territories.

The third section of the report includes information on the sources of data (Appendix I), explanations of terms and analytic issues (Appendix II), and references (Appendix III).

## ***How indicators were selected***

The *Women's Health and Mortality Chartbook* features 27 different health indicators taken from *Healthy Women*, covering a wide range of health issues for women. The Department of Health and Human Services' Office on Women's Health and the Centers for Disease Control and Prevention's National Center for Health Statistics chose

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these indicators through careful review of the available data. These 27 indicators were chosen for the following reasons:

- They are regularly measured at the state level.
- They cover a wide range of mortality, morbidity, health risk factors, preventive services, and access to health care concerns.
- They cover a wide spectrum of disease types.
- They cover the full lifespan of women, from young adults to older women.

These broad criteria, combined with priorities set forth in two Department of Health and Human Services initiatives, Healthy People 2010 and *Steps to a HealthierUS* determined the final selection of indicators presented. Indicators available to measure either Healthy People 2010 or *Steps to a HealthierUS* objectives at the state level were chosen over other indicators, and the measure of the indicator used was formulated as defined by the HHS initiative. However, readers should be aware that both of these initiatives set targets for all of the U.S. and are not sex-specific. Therefore, text in the profile summaries stating that a state has met a Healthy People 2010 target, for example, does not imply that the state as a whole has met the objective. It refers only to the women in that state.

**Healthy People 2010** contains 467 objectives designed to serve as a road map for improving the health of all people in the United States during the first decade of the 21st century. Healthy People 2010 builds on similar initiatives pursued over the past two decades. Two overarching goals--increase quality and years of healthy life, and eliminate health disparities--served as a guide for developing objectives that actually measure progress. Indicators were chosen based on their ability to motivate action, the availability of data to measure their progress, and their relevance as broad public health issues.<sup>1</sup>

***Steps to a HealthierUS*** is an initiative that advances President George W. Bush's HealthierUS goal of helping Americans live longer, better, and healthier lives. At the heart of this program lie both personal responsibility for the choices Americans make and social responsibility to ensure that policy makers support programs that foster healthy behaviors and prevent disease. The diseases targeted in this program are: diabetes, obesity, asthma, heart disease and stroke, and cancer. The lifestyle choices being targeted are: poor nutrition and physical inactivity, tobacco use, preventive screening, and youth risk taking.<sup>2</sup>

### ***Associations between indicators***

Some of the risk factor indicators presented in the chartbook have previously been found to be associated with other disease or risk factor indicators that are included. In some cases, these associations are noted in the summary text accompanying the state profiles. These known associations are:

- High blood pressure is positively associated with heart disease (including coronary heart disease)<sup>3</sup> and stroke.<sup>4</sup>
- Obesity is positively associated with hypertension, diabetes, heart disease, and stroke.<sup>5, 6</sup>
- Leisure time physical activity is inversely associated with heart disease,<sup>7</sup> stroke,<sup>7</sup> diabetes,<sup>8</sup> and obesity.<sup>9</sup>
- Smoking is positively associated with heart disease and cancer, as well as many other diseases.<sup>10, 11</sup>
- Smoking during pregnancy is positively associated with pregnancy complications, low birth weight delivery, and increased infant mortality and morbidity.<sup>10</sup>
- Binge drinking is positively associated with organ damage, motor vehicle crashes, and interpersonal violence.<sup>12</sup>
- Consumption of greater numbers of fruits and vegetables is associated with decreased obesity<sup>13</sup> and cancer.<sup>14</sup>

Furthermore, many of the preventive service indicators presented are useful in reducing morbidity and mortality of some of the other indicators. These include:

- Cholesterol screening reduces heart disease mortality.<sup>15</sup>
- Mammography reduces breast cancer mortality.<sup>16</sup>

- 
- Blood stool testing reduces colorectal cancer mortality.<sup>17</sup>
  - Adequate prenatal care is associated with improved birth weights, and decreased risk of preterm delivery, maternal mortality, and infant mortality.<sup>18</sup>

While all of these associations have been well documented, the studies investigating disease relationships do so at the level of the individual. That is, this type of research measures risk factors or preventive care and health outcomes on individual people and then makes statistical summaries over the group of people being studied. These same associations may not exist at the state level because many factors influence disease. For instance, there are states with a high proportion of women who reported receiving regular mammograms where the breast cancer death rate is also high. This should not be seen as evidence that mammography does not reduce breast cancer death. Rather, incongruent indicators at the state level should be noted and further investigated.

## ***How comparisons were made***

### *Rankings*

Every state and territory was assigned a ranking for each indicator, indicating how women in that geographic area fare compared to other geographic areas. The rankings were assigned based on the “state total” value for that indicator. Low numbered rankings indicate better health and high numbered rankings indicate poorer health. Rankings compare the states and territories on women’s health status only.

### *Profile summaries*

Each profile shows data for a particular state across each of the 27 health indicators. A few significant or noteworthy findings for each state and territory are highlighted in summaries at the top of the profiles. The profile summaries are not comprehensive descriptions of the data included in the tables. Rather, they are intended to provide a brief overview of women’s health in that state or territory and to put some of that information into a national or regional context.

In general, the summaries note particularly low (best 10) and high (worst 10) rankings, health status that is either near to, or far from, the goals of *Steps to a HealthierUS* or the targets of Healthy People 2010, and considerable or noteworthy racial differences in women’s health. Specifically, indicators for which a state or territory ranked in or near the top ten or bottom ten are generally noted in the summaries. High and low rankings on indicators relating to *Steps to a HealthierUS* are pointed out. Healthy People 2010 targets are highlighted under the circumstances described below.

For several of the presented indicators, few states or territories have met the Healthy People 2010 targets among women. For these indicators, it was generally noted if women in a state or territory had already met the target. These include:

- Diabetes-related death (females in Arizona, Florida, and Nevada have met the target)
- Total cancer death (females in Arizona, California, Colorado, Florida, Hawaii, Idaho, Iowa, Nebraska, New Mexico, North Dakota, South Dakota, Utah, and Puerto Rico have met the target)
- Breast cancer death (females in Hawaii, Utah, and Puerto Rico have met the target)
- Colorectal cancer death (females in Hawaii, Idaho, Utah, and Puerto Rico have met the target)
- Chronic lower respiratory death (females in Hawaii have met the target)
- Stroke death (females in the District of Columbia, Florida, New Jersey, New York, Rhode Island, and Puerto Rico have met the target)
- Unintentional injury death (females in California, Hawaii, Maryland, Massachusetts, New Jersey, New York, Rhode Island, and Puerto Rico have met the target)
- Obesity (women in Colorado have met the target)
- Leisure-time physical activity (women in Washington and Utah have met the target)

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For a few of the presented indicators, women in most states and territories have already met the Healthy People 2010 target. For these indicators it was generally noted if women in a state or territory had not met the target among women. These indicators include:

- Lung cancer death (females in Alaska, Delaware, Indiana, Kentucky, Maine, Missouri, Nevada, Oklahoma, Oregon, Washington, and West Virginia have not met the target)
- Coronary heart disease death (females in the District of Columbia, Michigan, Mississippi, Missouri, New Jersey, New York, Ohio, Oklahoma, Rhode Island, Tennessee, and West Virginia have not met the target)
- Mammograms (women in Arkansas, Idaho, Mississippi, New Mexico, Oklahoma, Texas, Utah, and Wyoming have not met the target)

### ***Health indicator ranges***

There are two issues regarding the range of values presented in the health indicators which deserve mention. The first is that for some indicators, even geographic areas with the best rankings do not meet standards of good health. For example, in the states with the best rankings on leisure-time physical activity, almost 20 percent of women participated in no activity. The Healthy People 2010 objective is to reduce the proportion of adults who engage in no leisure-time physical activity to 20 percent, and so most states have levels of physical inactivity that are well above what is desirable.<sup>1</sup> Many of the reported indicators demonstrate that on a national basis, U.S. women are not meeting Healthy People goals.

The second issue is that the range of values in some of the indicators is relatively narrow. Therefore, the difference in the absolute value between states in the best quintile and those in the worst quintile may be very small. For example, the range of values for suicide mortality rates is 1.6 to 7.7. Having higher or lower rankings on these indicators may have less significance than for other indicators where the range is greater.

### ***Race and Hispanic ethnicity***

Data on race and Hispanic origin are presented in the greatest detail possible, after taking into account the quality of data, the amount of missing data and the number of observations. For at least part of the time period being presented, the data collection systems were using the 1977 Office of Management and Budget's Standards for race data, which require the use of four racial groups and separate tabulations by Hispanic origin. More detailed racial analyses were therefore not possible. The large differences in health status by race and Hispanic origin documented in this chartbook may be explained by several factors including socioeconomic status, health practices, psychosocial stress and resources, environmental exposures, discrimination, and access to health care. Most of the racial differences noted in the text associated with the state table pages are not unique to the state, but generally follow patterns seen in the nation as a whole.

Differences in health status between particular racial or ethnic groups and the white population were sometimes noted in the state profile summaries. Only differences that were found to be statistically significant were mentioned, although not every statistically significant difference could be included.

Office on Women's Health  
Department of Health and Human Services  
200 Independence Avenue, SW Room 730B  
Washington, DC 20201  
Telephone: (202) 690-7650  
Fax: (202) 205-2631

•

National Center for Health Statistics  
Centers for Disease Control and Prevention  
3311 Toledo Road, Room 5412  
Hyattsville, MD 20782  
Telephone: (301) 458-INFO  
Fax: (301) 458-4027

•

The Lewin Group, Inc.  
3130 Fairview Park Drive  
Suite 800  
Falls Church, VA 22042  
Telephone: (703) 269-5500  
Fax: (703) 269-5501

***Healthy Women: State Trends in Health and Mortality* data files may be downloaded  
from the NCHS website:**

**<http://www.cdc.gov/nchs/healthywomen.htm>**

The complete data collection is also available on CD-ROM.

For more information on NCHS products, contact:

Data Dissemination Branch  
National Center for Health Statistics  
Centers for Disease Control and Prevention  
3311 Toledo Road, Room 5412  
Hyattsville, Maryland 20782  
Telephone: (301) 458-INFO  
Fax: (301) 458-4027